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The cause and development of diphtheria has been agitated in the medical literature of all civilized nations during the past thirty years nearly to exhaustion.

The propagation of diphtheria by spores and fungus parasites, as well as the miasmatic theory, have their defenders; and a variety of other speculations have been advanced, without establishing any of these hypotheses satisfactorily.

We find in Ziemssen's "Medical Cyclopedie" that Homer and Hippocrates advanced views from which Bretonneau attempted to prove that diphtheria was known even at those times, and that since the disease has been at various periods destructive to human life. No exact knowledge can be gleaned from the authors of the past, because the disease was frequently confounded with other affections, such as scarlet fever, etc.

Bretonneau is the first who made accurate investigations, and presented his views in two treatises to the French Academy of Medicine in 1821. He named this form of disease angina diphtheritica, on account of its essential characteristic symptom, the exudation. He believed that an inflammation without an exudation is not diphtheritis, and that diphtheritis must be spread by contagion.

He attempted to prove that contagion occurred only when the diphtheritic secretion, in the form of fluid or dust-like atoms, came in contact with the soft mucous membrane, or with the skin deprived of its epithelium. He believed the disease could only be transferred by inoculation,

and that the atmosphere did not act as a medium for spreading the contagion. It was his opinion that croup and diphtheria were identical, the latter being but a higher degree of the former.

Thirty years later we find Virchow advancing his theory. He finds that the exudation following diphtheritic inflammation, depriving the mucous membranes and the underlying tissues of their supply of nutrition, is the cause of malignity and consequent mortification.

Virchow asserts that diphtheria and croup are two entirely heterogeneous processes; but Wagner (an equally weighty authority) endeavored to prove that both were identical: that they only differed in the fact that the one was confined to the throat while the other involved the air passages, and that the formation of the false membranes depended, not upon the throwing out of a fibrinous exudation over the surface, but upon a peculiar metamorphosis of the epithelium, which he describes as a fibrinous degeneration of these cells.

Several hundred writers, from all countries, have recorded their views and experience in the medical annals without solving the perplexing question—what is diphtheria?

The microscope at first seemed to shed light upon the subject. The discussion concerning the nature of diphtheria assumed a new phase when Oertel and others discovered that the diphtheric membranes, the subjacent tissues, and even the blood of diphtheric patients contained

vegetable or bacteria in great numbers. This discovery created quite a revolution in medical matters. Scientists discovered at once vegetable fungi in all pathological secretions ; wounds had to be hermetically closed : antiseptics came into demand in the hospital and in the lying-in room, and men of high standing in the medical profession, recognizing these vegetable parasites, which they discovered under the microscope during their clinical observations, demonstrated, with a surprising constancy, the septic character of well nigh every form of disease.

Oertel, who treated the subject most exhaustively, has evidently not been well understood by many recent writers, and particularly by the advocates of the fungous theory.

He says: "The vegetations in the pathological products of diphtheria consist, as already stated, principally of spherical bacteria (the micrococcus), accompanied by a larger or smaller number of bac. ter., represented always by the smallest form known, and this occurs so constantly that in every part where a diphtheritic infection has appeared there the tissue and exudations are filled with bacteria. They were discovered as far back as 1868, by Buhl, Hueter and myself, in false membranes, the blood and the tissues. In like manner they were demonstrated by Van Recklinghausen, Nassiloff, Waldeyer, Klebs, Eberth, Heiberg and others. I called them at the time micrococcus, in the same sense as Cohen used the term. It is not to be confounded with the micrococcus of Hallier, who applied the term to one of the higher forms of yeast (ferment fungi)."

Oertel shows further that diphtheria begins in the catarrhal form beneath the epithelium, in which no bacteria are formed, and that it may pass to the croupous variety, or laryngeal diphtheria, in which, as yet, no bacteria have been discovered until abrasion of the epithelium has taken place, and that this form may degenerate into the septic gangrenous variety, with large development of pus cells and masses of bacteria, which are transported, with the septic matter, into the blood and various organs and tissues of the body.

He very clearly proves that the bacteria are not found in the diphtheritic deposit, unless an erosion and abrasion of the epithelium has been effected, and that they are not found in any of

the tissues of the body or the blood *until after this erosion has taken place* and the tissue is destroyed by putrefaction : and it is only through these means that septicaemia and the presence of bacteria may be a consequence, but not a cause of the disease.

Diphtheria is a sporadic form of disease, appearing at times epidemically. Its ravages have been chiefly observed among those individuals who have a scrofulous diathesis complicated with a syphilitic taint ; also strumous individuals who are subject to glandular swellings, enlarged tonsils, and who suffer frequently from catarrhal or croupous affections. These, above all others, are the first to feel its destructive power. Nearly all who die from the effects of this disease are known to have had such predispositions.

Vaccination is also a fruitful source to develop this dreaded disease, particularly when the matter is taken from a scab, as we have no means of knowing whether we have taken putrified matter or not.

It is now a generally recognized fact that vaccination has multiplied disease, and has in many cases contaminated individuals who would otherwise have escaped. The complaints following vaccination are either sudden and dangerous, or long, lasting and difficult to cure.

Another cause for the frequency of diphtheria may be found in the fact that too little care is taken in the treatment of the diseases of early childhood. It is well known that suppressed disease of any form is followed by metastasis ; the seed of disease is only slumbering in the system, until it breaks forth in great violence when aroused during sickly seasons.

Diphtheria has been the scourge of humanity for the past thirty years, steadily increasing in all civilized countries : neither latitude nor longitude, heat nor cold, as far as can be learned, have changed its ravages.

In view of the variety of opinions advanced by professional men about the cause and development of diphtheritis, it is not surprising that there exists so great confusion in its description. Unimportant complications of this disease have been taken advantage of to establish new species, for which a variety of names have been advanced, without deriving therefrom any practical benefit.

Well aware that any man who advances new

views or attempts to disprove existing error meets opposition, I am nevertheless prepared to prove that it is improbable and repugnant to common sense to assert that micrococci, or bacteria, are the cause of diphtheria. The history of bacteria shows that they exist independent of diphtheria, and that they form no complication with the disease until after solution of the epithelium has been brought about by suppuration and excessive flow of saliva, which always attends this disease, or by roughly swabbing the throat and fauces, or by attempting to remove the exudation by cauterization.

Diphtheria is, in its primary stages, nothing less than an inflammation of the lining membranes of the throat, which in many instances resembles membranous croup, with the difference that diphtheria has a premonitory stage, while membranous croup commences sometimes very suddenly. The diphtheritic process is a membranous exudation. It is a common occurrence upon the lining membrane of the mouth and fauces. The formation of pseudo membranes even is not necessarily considered an important complication, but when diphtheritis is the local expression of disease, it pursues a rapid course, and may terminate fatally in a very short time, particularly when favored by climatic or telluric influences.

I have made, very carefully, numerous microscopic examinations of the secreta of diphtheritic patients, but have been unable to discover any of the various forms of parasites as reported to exist in diphtheritic exudation during *the first stages* of the disease; but when the disease is not arrested in the primary stages, its progress is generally very rapid, hastening to decomposition.

The inflamed membranes are covered with patches, which consist of a pulpos, cheesy exudation of various thicknesses, which may be easily detached from the mucous membrane. Sometimes these pseudo-membranous patches are tinged with black blood, and resemble gangrenous crusts, which are frequently expelled in fragments: but they are reproduced with great rapidity. The resemblance of these whitish-gray formations to gangrenous scurfs, and the peculiar odor from the mouth have been frequently mistaken for genuine gangrene.

It is this grayish exudation of fibrinous matter

which, when brought under the microscope, exhibits sometimes fungous parasites (oedum albicans). The sporules and mycelium of this fungus may invade the mucous membranes, the fauces, and even the alimentary canal; its irritation induces in the enfeebled membranes an increased secretion of epithelial scales and exudation corpuscles.

These fungous parasites are only at times, but not in all cases, discovered in specific exudation; therefore these invaders are not the cause but the products of the disease, and are found to exist in all putrid secretions in other forms of disease.

These microscopic parasitic organisms greatly aggravate diseases, but they never yet have been the cause thereof. They find only a suitable soil for their development, and may aid in complicating and masking the original disease, and are the production of putrefactive fermentation.

Another proof of my observation is, that parasitic growths are only witnessed in cases where the putrefaction is well advanced, but never in the beginning. This accounts for the fact, that many observers were unable to discover these parasites at all times, even by the most minute examination.

This parasitic theory has led to great errors in diagnosis and practice. It is, therefore, not surprising that so many individuals fall victims not of the disease, but of the treatment. The aim of the physician has been to kill the parasites, which has frequently been fatal to the patient; whereas, if we cure the disease, the parasites can neither develop nor exist.

We are daily breathing an atmosphere impregnated with myriads of microscopic cells. The air is also contaminated with effluvia from low or fresh-plowed lands, and from swampy, marshy countries. Without that, our health is not materially affected.

This condition is worse during dry seasons, on account of the putrefactive decomposition of animal secreta which accumulate in the public streets, and which are by the winds whirled in all directions, and find their way into the remotest recesses of our dwellings.

It is a well established fact that diphtheria is as readily manageable under homœopathic treatment as any other form of disease. The experienced practitioner should but seldom meet

with a fatal case, because he has therapeutic means at his disposal which readily and surely control the primary inflammation as well as the conditions of the disease in the advanced stages. Even in badly mismanaged cases he is frequently successful, provided the patient is not under the influence of destructive drugs, which may prevent recovery.

There is perhaps no disease which has baffled the skill of the physician more than diphtheria. I have spent considerable time in examining the bulky literature on this subject. It is astonishing to find, in the nineteenth century, that there has not been one spirit to advance anything positive, or to attempt to bring harmony into this lamentable chaos. As it is, we find page after page of contradictions in the allopathic works on practice. What one man recommends as a fact is denounced by another as false. There is nothing positive; all is conjecture.

The result of my investigations in this direction may be summed up briefly in the words of one of their most illustrious teachers, George B. Woods, M. D., president of the American Philosophic Society and of the College of Physicians, of Philadelphia, etc. In his work on Practice of Medicine, edition 1866, vol. 1, page 520, he says: "There is no certain or special remedy for diphtheria. Many have been claimed, but the partial estimate of their proposers has not been confirmed by the subsequent experience of others. . . . By some distinguished practitioners, reliance is placed mainly on local measures, almost to the exclusion of those addressed to the constitution, particularly of all those for which specific virtues have been claimed; whilst others, perhaps equally distinguished, trusting mainly to general remedies intended to alter the blood or change the systematic actions, attach but little importance to local applications, and eschew altogether those of an energetic character."

Dr. Medbery has recorded in the *Journal of Materia Medica*, July, 1877, page 133, and in the *Medical and Surgical Journal*, a specimen of modern treatment for diphtheria. When first called to a patient with this disease, he says: "I invariably prescribe some mild but active cathartic. Calcined magnesia I find is one of the best for this purpose. Locally, I use the persulphate of iron (Monsel's powder) and glycerine; one to two drachms of the former to one and a

half ounces of the latter, used with a swab every three hours, always using this wash soon after the removal of the membranes. Internally, I use chlorate of potassa in large doses. A favorite prescription of mine is chlorate of potassa, three drachms; syrup of lemon and rose-water, each one ounce and a half; give one teaspoonful every two to three hours. This is for a child of three to five years. The amount is to be varied so as to meet each individual case. Externally, I use salt pork, well rubbed with capsicum (red pepper). This constitutes my principal treatment in these cases. . . . I give this treatment with much confidence, having used it during the past winter. [Does not state with what results. How many recovered?]

"The treatment pursued by myself and many others (as per our text-books), with hypo-sulphite of soda, internally, and liq. persulphate ferri, with carbolic acid and glycerine; hydrochloric acid with iron, internally—each in their turn have all signally failed of good, as the great mortality will show."

In view of such facts, and considering the enormous mortality these physicians meet with in cases of diphtheria, is it not reasonable to suppose that the interest of some conscientious practitioners would have been aroused, and led them to speculate in a direction where they easily could find the solution of their misfortune in the treatment of diphtheria.

Whenever physicians, who administer crude drugs in quantities which are capable of producing poisonous effects in the human system, would learn so ascertain what changes they will produce upon themselves, they would no longer administer them to the sick, nor would they ignore the law of *similia similibus curantur*.

At the beginning of this century, the German Shakespeare, Goethe, recognized the uncertainty and deficiency of the art of healing. He satirized this lamentable condition in his "Faust." Notwithstanding that the studies of physiology, pathology, chemistry, and, since we are blessed with the microscope, histology, have made satisfactory advancements, the therapeutics of to-day are more obscure than ever. The venerable Doctor Faust, accompanied by his devoted Famulis Wagner, appears among the joyful people on a bright holiday. In vain is he trying to escape the homages of the people:

**A CITIZEN**—Doctor, it is really kind of you to descend to come this way, and not to shun us on this glad day. Your father and yourself always have been our friends, and on evil days, too. You were then young, and full of hope. You went in every house. Body after body was borne hence, but you came out safe. The Helper helped the helper.

**FAUST** (reverently)—Praise Him above who sends help in distress.

**WAGNER**—How happy must you feel, great man, who, as you well know, rightly deserves such honors, for the gifts which Heaven has bestowed upon you.

**FAUST**—A few steps further. On yonder rock let us rest. Here I have set alone many a time in the past, then rich in hope, possessed with sincere faith, praying and fasting, with sighs and groans to Heaven, to have the sore plague stopped. Oh, could thou read in my very inner being how little sire and son merited these thanks! We raved with our hellish mixtures in these valleys far more than the pestilence. I have administered myself the poison to thousands; they pined away—and died; no one inquired who recovered; and I must live to hear the reckless murderers praised.\*

Hahnemann, with his sharp, critical eye, recognized the poverty and unreliability of medicine in his time, and his productive brain was capable of creating a rational and safe therapeutic system in medicine. As such it is not antagonistic to medicine considered as a scientific whole. On the contrary, it constitutes a necessary completion of this science, inasmuch as the homœopathic system establishes a part of scientific medicine,

Homœopathy is not merely an appendix to science and to scientific pathology, but it is independent in itself. It has created a *materia medica* which is destined to be the guiding star to physicians for ages.

Although we have not yet a complete therapeutical treatise of diphtheria, and notwithstanding the clinical material is scattered through a vast amount of literature, we can boldly assert that the results obtained in the treatment of diphtheria under the homœopathic law of cure are far more satisfactory than those obtained by allopathic practice.

For the present, we find in the works of Drs. Hering, Hartmann, Boenninghausen, Raue, Baehr, Kafka, Hempel, Hughes, Ruckert, Grauvogl, Oehme, Ludlam, Dake, Guernsey, Neidhard, Dunham, Lippe, and many others, more practical information than can be found in

the whole bulk of medical literature. Besides this, there is a vast amount of very valuable information scattered through the numerous homœopathic journals printed in all languages.

But younger members of our profession, desirous of gleaning from the experience of others, will find it, at times, a laborious task to do so, especially in the presence of a severe case, when time is precious; and as, in many instances, the recommendations of writers are not sufficiently supported by clinical facts, or they are not based upon experience.

For instance, we find that Dr. Hughes recommends kali. per mang.; Dr. Minton, chlorate of lime; Drs. Giglioovo and Davison, carbolic acid; Dr. Billig, nitric acid; Dr. Fleischmann, kali. phos.; Dr. Schuessler, natr. mur.; Drs. Gullon, jr., and Gerhardt, merc. corr.; Drs. Alph. Beck and Von Villers, the cyanuret of merc.; Dr. Trinks, phosph.; Dr. Hirsch, iodine; Dr. Williamson, crot. tig.; Dr. Lutze, chromic acid; Dr. Logan, hydrastis, etc., etc. The busy practitioner has no time to consult all these authorities; he must be prepared in advance.

I must admit that it is difficult to obtain light out of such confusion. At the same time, it is not very important, because the physician who is familiar with the pathogenesis of the remedies which he employs, readily overcomes these obstacles. The fact is, cauterization is useless, and therefore an unnecessary torture to the patient.

*Diphtheria is not a local affection, but a constitutional disease.* a characteristic symptom of which is the exudation in the fauces. Of what use can the destruction of the local symptoms possibly be, since the disease continues its destructive course? With the same propriety we may cauterize the variola pustules.

The practice of alternating several remedies is also a peculiarity of our English brethren, which is followed by some practitioners in the United States. The clinical results from such practice have no professional value, and is no reliable testimony.

The superiority of the treatment of disease according to the law, *similia similibus curantur*, is now well established. The records of epidemics prove beyond a doubt that the mortality in cholera, variola, scarlet-fever, measles, yellow-fever, diphtheria, etc., is less than one-half of that by

\* Free translation by the author.

any other mode of treatment, especially in diphtheria. A thorough acquaintance with the pathogenesis of our remedies, a correct diagnosis, and careful individualization will enable the practitioner to save lives, frequently under very adverse circumstances.

Having applied the precepts of Hahnemann's teachings, in a very extensive practice, for nearly thirty years to every form of disease with satisfactory results, I am confident that earnest study of our text-books, and particularly of *ma-*

*teria medica*, will be productive of far better results in the future.

The telegraph and the press have brought us in closer relation with the master minds of all nations. Through the medium of our numerous journals we become acquainted with their experience. Every number adds some grains of gold to the storehouse of our knowledge. Every day brings forth new features. Every case which is presented for treatment exhibits some new conditions, which require special study.